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(71) Applicants (*for all designated States except US*): **THE JOHNS HOPKINS UNIVERSITY** [US/US]; Applied Physics Laboratory, 11100 Johns Hopkins Road, Laurel, MD 20723-6099 (US). **UNITED STATES OF AMERICA AS REPRESENTED BY THE SECRETARY OF THE NAVY** [US/US]; Naval Sea Systems Command (SEA 00L5), 133 Isaac Hill Avenue, Washington, DC 20376 (US).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **CHARLES, JR.,**

Harry K, [US/US]; 10500 Patuxent Ridge Way, Laurel, MD 20723 (US). **MECHTEL, Deborah M.** [US/US]; 9027 Early April Way, Columbia, MD 21046 (US). **FRANCOMACARO, Arthur S,** [US/US]; 853 Margo Court, Eldersburg, MD 21784 (US).

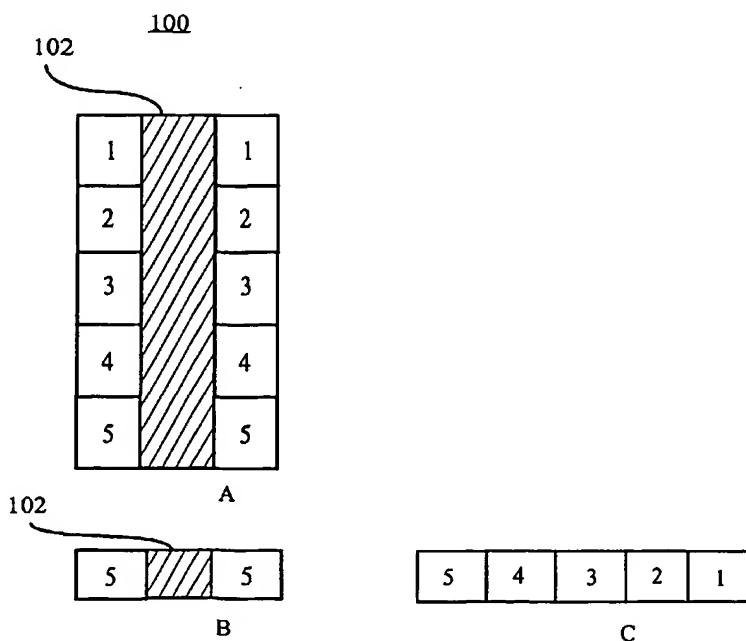
(74) Agents: **ROCA, Benjamin Y,** et al.; The Johns Hopkins University, Applied Physics Laboratory, 11100 Johns Hopkins Road, Laurel, MD 20723-6099 (US).

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[Continued on next page]

(54) Title: TRANSITIONS IN REFRACTIVE INDEX USING ELECTRO-OPTIC POLYMERS



(57) Abstract: The index of refraction of the doped regions (1-5) in a length of doped and/or "doped-and poled" electro-optic polymers is controlled so that a gradual transition from a small difference in refractive index between the doped and the undoped (core) regions (Δn) to a large Δn , or vice versa, is achieved for use in, for example, a lightguide-to-fiber transition. Multiple methods for creating this gradual transition are disclosed.



SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

Declaration under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE,*

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A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 G02B6/12 G02B6/30

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 IPC 7 G02B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, INSPEC, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	INABA R ET AL: "TWO-DIMENSIONAL MODE SIZE TRANSFORMATION BY DELTA-CONTROLLED POLYMER WAVEGUIDES", JOURNAL OF LIGHTWAVE TECHNOLOGY, IEEE. NEW YORK, US, VOL. 16, NR. 4, PAGE(S) 620-624 XP000768969 ISSN: 0733-8724	1,12
Y	the whole document	2-11, 13-22
X	KOWALCZYK T C ET AL: "GUEST-HOST FLUORINATED POLYIMIDES FOR ELECTRO-OPTIC APPLICATIONS", MOLECULAR CRYSTALS AND LIQUID CRYSTALS SCIENCE AND TECHNOLOGY. SECTION B. NONLINEAR OPTICS, GORDON AND BREACH SCIENCE PUBLISHERS, US, VOL. 14, NR. 1/4, PAGE(S) 185-195 XP000577789 ISSN: 1058-7268 the whole document	1,12

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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- "&" document member of the same patent family

Date of the actual completion of the International search

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Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
 NL - 2280 HV Rijswijk
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
 Fax: (+31-70) 340-3016

Authorized officer

Anderson, C

INTERNATIONAL SEARCH REPORT

International Application No

PCT/03/28020

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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